# Tyson S. Barrett, PhD

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CITATIONS: 887 H INDEX: 16

### **EDUCATION**

Ph.D. Quantitative Psychology | Feb 2018

Utah State University

Dissertation: Marginal Mediation Analysis: A New Frame-

Updated: January 3, 2023

work for Interpretable Mediated Effects

B.S. Economics | May 2014

Utah State University

 $Cum\ Laude$ 

B.S. Psychology May 2014

Utah State University

 $Cum\ Laude$ 

### RESEARCH APPOINTMENTS

Manager Research Analytics and Enablement, Highmark Health 2022-Present

Lead of Statistical and Methodological Team Care Analytics in Entreprise Data and Analytics

Research Scientist, Department of Communication Disorders, Utah State University 2022-Present

Research Assistant Professor, Department of Psychology, Utah State University 2018-2022

Managing Director of the Data Science & Discovery Unit

Administrator of SONA Systems Administrator of REDCap

Research Assistant, Prevention Science Lab, Utah State University 2016-2018

Advisor: Ginger Lockhart, PhD

Statistical and Data Science Consultant, Utah State University 2016-2018

Supervisors: Sarah Schwartz, PhD and Jamison Fargo, PhD

WOC Research Assistant, Veteran Affairs SLC 2016-2018

Advisors: Vanessa Stevens, PhD and Richard Nelson, PhD

### RESEARCH AREAS

PRIMARY: Applied Methodology in the Health and Disability Disciplines

SECONDARY: Accessible Methodology Using R Programming

### PROFESSIONAL SERVICE

Center for Open Science Ambassador 2019-Present

Rdatatable Contributor 2019-Present

# EXTERNAL FUNDING (Ongoing)

Necessary Education and eXperiential Training for Upcoming Para-professionals (NEXT-UP) September 1, 2020 - August 30, 2024

Voss, M. (PI) & **Barrett, T. S. (Co-I)**. Sponsored by HRSA, 1 T26HP39463-01-00. Current Status: Funded. \$2,296,000.

This project enhances Utah's peer workforce by addressing the clinical priorities of: 1) incorporating family-focused curriculum enhancements and 2) emphasizing and funding hands-on learning in mentored inter-professional field placements. It will increase training by more than 50%, with basic and advanced (family-focused) certification and work experience. The evaluation of the program will be ongoing throughout the program's implementation.

Bridging Harm Reduction and Wellness for Tribal and Rural Areas of the Intermountain West Sept 1, 2020 - Aug 31, 2023

Sulzer, S. (PI), Prevedel, S., Chapoose, M., Madden, E., **Barrett, T. S. (Co-I)**, Keady, T., Peatross, J., DasGupta, D., Fullenkamp, N., & Zaman, K. Sponsored by SAMHSA, H79TI083267. Current Status: Funded. \$1,099,997.

This project is designed to provide opioid addiction treatment services for tribal and rural areas. The evaluation of the project is ongoing throughout the administration of the services.

Video- and App-Based Naturalistic Language Instruction (VALI) for Spanish-Speaking Caregivers to Support Bilingual Language Development in Children With or At Risk for Language Delays July 1, 2020 - June 30, 2024

Larson, A. (PI), Snyder, P. (Mentor) Domenech Rodriguez, M. (Mentor), & Barrett, T. S. (Consultant). Sponsored by IES/NCSER, R324B200009. Current Status: Funded. \$499,927.

The purpose of the research plan is to adapt an existing app, Háblame Bebé, that provides information to Spanish-speaking families about the importance of frequent and responsive verbal interactions with children in the home language but does not provide information on how to embed NLIS within everyday activities and routines to support DLLs with language delay.

Application of Ideal Binary Masking to Disordered Speech

April 1, 2020 - March 31, 2023

Leopold, S. (PI), Borrie, S. A. (Co-I), & Barrett, T. S. (Co-I). Sponsored by NIH/NIDCD, 1R21DC018641-01. Current Status: Funded. \$430,000.

The major goal of this project is to utilize an established signal processing technique to investigate its potential application to overcome speech-in-noise difficulties for listeners understanding dysarthric speech.

Perceptual training for improved intelligibility of dysarthric speech July 1, 2020 - June 30, 2022

Borrie, S. A. (PI), Lansford, K. (PI), & **Barrett, T. S. (Co-I)**. Sponsored by NIH/NIDCD 1R21DC018867-01. Current Status: Funded. \$420,000.

The major goal of this project is the systematic analysis and identification of speaker and listener parameters, and their interactions, that allow perceptual training paradigms to be optimized for intelligibility outcomes in dysarthria rehabilitation.

# EXTERNAL FUNDING (Completed)

Psychological flexibility in adults with ASD: Psychological distress in the context of COVID-19 Sept 1, 2021 - Aug 31, 2022

Aller, T. B. (PI), **Barrett, T. S. (Co-I)**, McClain Verdoes, M. (Co-I), & Levin, M. (Co-I). Sponsored by National Research Consortium on Mental Health in Intellectual and Developmental Disabilities. Current Status: Funded. \$10,000.

The aims of the study are to explore how psychological flexibility influences psychological distress in adults with ASD and to establish the dimensionality, internal consistency, test-retest reliability, and the concurrent and convergent validity of the Acceptance and Action Questionnaire II (AAQ-II) and of the Brief Experiential Avoidance Questionnaire (BEAQ) in adults with ASD.

# PEER-REVIEWED JOURNAL ARTICLES

In Press

- Wynn, C. J., **Barrett, T. S.**, Berisha, V., Liss, J., & Borrie, S. A. (in press). Speech Entrainment in Adolescent Conversations: A Developmental Perspective. *Journal of Speech*, *Language*, and *Hearing Research*.
- Hancock, A., Warren, C., **Barrett, T. S.**, Bolton, D., & Gillam, R. (in press). fNIRS Measures of Neural Activity in Children with and Without Developmental Language Disorder During a Working Memory Task. *Brain and Behavior*.
- Tannahill, H. S., **Barrett, T. S.**, Zalta, A. K., Tehee, M., & Blais, R. K. (in press). A moderated mediation model of gender, posttraumatic cognitions, and posttraumatic stress disorder symptoms after military sexual assault revictimization. *Journal of Interpersonal Violence*.
- Harper, S. A., Long, C. Corbridge, S., Barrett, T. S., Braeger, A., Zollinger, B. J., Hale, A.
  E., Brown, C. B., Harrison, K., Poulsen, S. L., Boman, T., & Dakin, C. J. (in press).
  Stairway visual contrast enhancement to reduce fall risk factors. *Journal of Ergonomics*.

2022

- Lansford, K., Barrett, T. S., & Borrie, S. A. (2022). Cognitive predictors of perception and adaptation to dysarthric speech in young adult listeners. *Journal of Speech, Language, and Hearing Research*.
- Brown, C. B., **Barrett, T. S.**, Long, C., Corbridge, S., Braeger, A., Harrison, K., Poulsen, S. L., Boman, T., Dakin, C. J., & Harper, S. A. (2022). Step edge highlighters and illuminance changes influence stair descent in a real-world setting. *Ergonomics*.
- Blais, R. K., Livingston, W. S., **Barrett, T. S.**, & Tannahill, H. S. (2022). Individual and interpersonal outcomes associated with single and multiple exposures of civilian and military sexual violence. *Journal of Interpersonal Violence*, 08862605221101197.
- Aller, T. B., **Barrett, T. S.**, Levin, M. E., McClain, M. B. (2022). Measuring psychological flexibility in autistic adults: The validity and reliability of the AAQ-II, BEAQ, and VQ. *Journal of Contextual Behavior Science*, 26, 125-133. https://doi.org/10.1016/j.jcbs.2022.09.001
- Reuveni, N., Carlson, C., Schwartz, S., **Barrett, T. S.**, & Freeman, S. (2022). The antidepressant and anxiolytic effect of cannabinoids in chronic unpredictable stress: a preclinical systematic review and meta-analysis. *Translational Psychiatry*, 12(1), 1-14.

- Wynn, C. J., **Barrett, T. S.**, Borrie, S. A. (2022). Rhythm Perception, Speaking Rate Entrainment, and Conversational Quality: A Mediated Model. *Journal of Speech*, *Language*, and *Hearing Research*, 1-17.
- Petersen, J. M., Barney, J. L., **Barrett, T. S.**, Lensegrav-Benson, T., Quakenbush-Roberts, B., & Twohig, M. P. (2022). Values engagement as a predictor of eating disorder severity in female adolescents with eating disorders. *Eating Disorders: The Journal of Treatment and Prevention*, 1-10.
- Harper, S. A., Long, C., Corbridge, S., Barrett, T. S., Braeger, A., Zollinger, B. J., Hale, A., Brown, C. B., Poulsen, S., & Dakin, C. J. (2022). Safe stairway negotiation: Role of distractions and handrail use. *Journal of Safety Research*.
- King, M., Ward, H., Soto, G., & **Barrett, T. S.** (2022). Supporting emergent bilinguals who use AAC and their families: Lessons in telepractice from the COVID-19 Pandemic. *American Journal of Speech-Language Pathology*, 1-18. https://doi.org/10.1044/2022\_AJSLP-22-00003
- Aller, T. B., Kelley, H., Fauth, E.B., & **Barrett, T. S.** (2022). A non-randomized, quasi-experimental comparison of effects between an in-person and online delivery of a college mental health literacy curriculum. *Prevention Science*. https://doi.org/10.1007/s11121-022-01350-y
- San Miguel, G. G., Muñoz, K., **Barrett, T. S.** & Twohig, M. P. (2022). Moderators and predictors in a parent hearing aid management eHealth program. *International Journal of Audiology*. https://doi.org/10.1080/14992027.2022.2048103
- Knollhoff, S., Hancock, A., **Barrett, T. S.**, & Gillam, R. (2022). Cortical Activation of Swallowing Using fNIRS: A Proof of Concept Study with Healthy Adults. *Dysphagia*. https://doi.org/10.1007/s00455-021-10403-3
- Barney, J. L., **Barrett, T. S.**, Lensegrav-Benson, T., Quakenbush, B., Twohig, M. P. (2022). Examining a mediation model of body image-related cognitive fusion, intuitive eating, and eating disorder symptom severity in a clinical sample. *Eating and Weight Disorders Studies on Anorexia, Bulimia, and Obesity*. https://doi.org/10.1007/s40519-021-01352-9
- Vázquez, A. L., Culianos, D., Navarro Flores, C. M., Alvarez, M. C., **Barrett, T. S.**, & Domenech Rodríguez, M. M. (2022). Psychometric evaluation of a barriers to mental health treatment questionnaire for Latino/a/x caregivers of children and adolescents. *Child & Youth Care Forum.* https://doi.org/10.1007/s10566-021-09656-8
- Larson, A. L., Baralt, M., Hokenson, J., Hammer, C. S., **Barrett, T. S.**, & DeVilbiss, N. (2022). A randomized controlled trial assessing the effectiveness of the Háblame Bebé mobile application with Spanish-speaking mothers experiencing economic hardship. *American Journal of Speech-Language Pathology*, 1-17. https://doi.org/10.1044/2021\_AJSLP-21-00094
- Borrie, S. A., Wynn, C. J., Berisha, V., & Barrett, T. S. (2022). From speech acoustics to communicative participation in dysarthria: Towards a causal framework. *Journal of Speech, Language, and Hearing Research*, 65(2), 405-418. https://doi.org/10.1044/2021\_JSLHR-21-00306
- Vázquez, A. L., Navarro Flores, C. M., Alvarez, M. C., Gonzalez Vera, J. M., Barrett, T. S., & Domenech Rodríguez, M. M. (2021). Youth mental health service preferences and utilization patterns among Latinx caregivers. *Children and Youth Services Review*, 131, 106258. https://doi.org/10.1016/j.childyouth.2021.106258

- Vázquez, A., Domenech Rodríguez, M. M., **Barrett, T. S.**, Amador Buenabad, N. G., Gutiérrez López, M. L., & Bustos Gamiño, M. N. (2021). Parent characteristics and practices classify lifetime substance use among Mexican children. *International Journal of Mental Health and Addiction*, 1-15. https://doi.org/10.1007/s11469-021-00634-8
- Vázquez, A. L., Chou, T., Navarro Flores, C. M., **Barrett, T. S.**, Villodas, M. T., & Domenech Rodríguez, M. M. (2021). High value correlates of caregiver reported counseling service need and utilization for adolescents at-risk for childhood maltreatment and neglect. *PLOS ONE*, 16(10), e0258082. https://doi.org/10.1371/journal.pone.0258082
- Barney, J. L., **Barrett, T. S.**, Lensegrav-Benson, T., Quakenbush, B., & Twohig, M. P. (2021). Confirmatory factor analysis and measurement invariance of the cognitive fusion questionnaire-body image in a clinical eating disorder sample. *Body Image*, 38, 262-269. https://doi.org/10.1016/j.bodyim.2021.04.012
- Sulzer, S., Prevedel, S., **Barrett, T. S.**, Voss, M. W., Manning, C. & Madden, E. F. (2021). Professional education to reduce provider stigma toward harm reduction and pharmacotherapy. *Drugs: Education, Prevention & Policy*, 1-11. https://doi.org/10.1080/09687637. 2021.1936457
- Buntrock, M. S., Barker, B. A., Gurries, M. M., & Barrett, T. S. (2021). The effect of talker familiarity on sentence recognition accuracy in complex noise. *Experimental Psychology*, 68(1), 49-55. https://doi.org/10.1027/1618-3169/a000509
- Tannahill, H. S., Fargo, J. D., **Barrett, T. S.**, & Blais, R. K. (2021). Gender as a moderator of the association of military sexual trauma and posttraumatic stress symptoms. *Journal of Clinical Psychology*, 77(10), 2262-2287. https://doi.org/10.1002/jclp.23162
- Borrie, S. A., Lansford, K. L., & **Barrett, T. S.** (2021). A clinical advantage: Experience informs recognition and adaptation to a novel talker with dysarthria. *Journal of Speech, Language, and Hearing Research*, 64(5), 1503-1514. https://doi.org/10.1044/2021 JSLHR-20-00663
- Lubold, N., Willi, M. M., Borrie, S. A., **Barrett, T. S.**, & Berisha, V. (2021). Healthy communication partners modify their speech when conversing with individuals with Parkinson's disease. *Journal of Speech, Language, and Hearing Research*, 64(5), 1539-1549. https://doi.org/10.1044/2021\_JSLHR-20-00233
- Muñoz, K., San Miguel, G., Barrett, T. S., Kasin, C., Baughman, K., Reynolds, B., Ritter, C., Larsen, M., Whicker, J. J., & Twohig, M. P. (2021). eHealth parent education for hearing aid management: A pilot randomized control trial. *International Journal of Audiology*, 60, S42-S48. https://doi.org/10.1080/14992027.2021.1886354
- Hirsch, M. E., Lansford, K. L., **Barrett, T. S.**, & Borrie, S. A. (2021). Generalized learning of dysarthric speech between male and female talkers. *Journal of Speech, Language, and Hearing Research*, 64(2), 444-551. https://doi.org/10.1044/2020\_JSLHR-20-00313
- Knollhoff, S., Borrie, S. A., **Barrett, T. S.**, & Searl, J. P. (2021). Listener impressions of alaryngeal communication modalities. *International Journal of Speech-Language Pathology*, 23(5), 540-547. https://doi.org/10.1080/17549507.2020.1849400
- Crapo, J. S., Barrett, T. S., Bradford, K., Miller, J. A., & Higginbotham, B. J. (2020). Couple relationship education outcomes predicted by family life stage and traditionality. Contemporary Family Therapy, 42, 422-435. https://doi.org/10.1007/s10591-020-09541-x
  - Ong, C. W., Hancock, A. S., Barrett, T. S., Lee, E. B., Wan, N., Gillam, R., Levin, M. E., & Twohig, M. P. (2020). A preliminary investigation of the effect of acceptance and commitment therapy on neural activation in clinical perfectionism. *Journal of Contextual Behavioral Science*, 18, 152-161. https://doi.org/10.1016/j.jcbs.2020.09.007

- Lansford, K., Borrie, S. A., **Barrett, T. S.**, & Flechaus, C. (2020). When additional training isn't enough: Further evidence that unpredictable speech inhibits adaptation. *Journal of Speech, Language, and Hearing Research*, 63(6), 1700-1711. https://doi.org/10.1044/2020 JSLHR-19-00380
- Darcy-Mahoney, A., White, R. D., Velasquez, A., **Barrett, T. S.**, Clark R. H., & Ahmad, K. A. (2020). Impact of restrictions on parental presence in neonatal intensive care units related to COVID-19. *Journal of Perinatology*, 40, 36-46. https://doi.org/10.1038/s41372-020-0753-7 medRxiv Pre-Print
- Larson, A. L., **Barrett, T. S.**, & McConnell, S. R. (2020). Exploring early childhood language environments: A comparison of language use and exposure in the home and childcare settings. Language, Speech, and Hearing Services in Schools, 51(3), 706-719. https://doi.org/10.1044/2019\_LSHSS-19-00066
- Borrie, S. A., Wynn, C. J., Berisha, V., Lubold, N., Willi, M. M., Coelho, C. A., & **Barrett, T.** S. (2020). Conversational coordination of articulation responds to context: A clinical test case with traumatic brain injury. *Journal of Speech, Language, and Hearing Research*, 63(8), 2567-2577. https://doi.org/10.1044/2020\_JSLHR-20-00104
- Nelson, L. H., Anderson, K., Whicker, J., Barrett, T. S., Muñoz, K. & White, K. (2020). Classroom listening experiences of students who are deaf or hard of hearing using the Listening Inventory for Education-Revised (LIFE-R). Language, Speech, and Hearing Services in Schools, 51(3), 720-733. https://doi.org/10.1044/2020 LSHSS-19-00087
- Vázquez, A. L., Domenech Rodríguez, M. M., Schwartz, S. E., Amador Buenabad, N. G., Bustos, M., Gutierrez, M., Villatoro Velázquez, J. A., & **Barrett, T. S.** (2020). Innovative identification of substance use predictors: Machine learning in national sample of Mexican children. *Prevention Science*, 21(2), 171-181. https://doi.org/10.1007/s11121-020-01089-
- Downs, J., Mohr, K. A. J., & Barrett, T. S. (2020). Determining the academic and affective outcomes of dyad reading among third graders. *Journal of Educational Research*, 113(2), 120-132. https://doi.org/10.1080/00220671.2020.1755615
- Borrie, S. A., Barrett, T. S., Liss, J., & Berisha, V. (2019). Characterizing conversational entrainment in dysarthria using a multidimensional, clinically meaningful approach.

  Journal of Acoustical Society of America, 61(3), 83-94. https://doi.org/10.1044/2019\_

  JSLHR-19-00194
  - Lansford, K., Borrie, S. A., & **Barrett, T. S.** (2019). Regularity matters: Unpredictable speech degradation inhibits adaptation to dysarthric speech. *Journal of Speech, Language, and Hearing Research*, 62(12), 4282-4290. https://doi.org/10.1044/2019\_JSLHR-19-00055
  - Smith, B. M., Ong, C.W., **Barrett, T. S.**, Bluett, E. J., Slocum, T. A., & Twohig, M. P. (2019). Longitudinal effects of a 2-year meditation and Buddhism program on well-being, quality of life, and valued living. *Mindfulness*, 10(10), 2095-2109. https://doi.org/10. 1007/s12671-019-01165-z
  - Ong, C. W., Barney, J. L., **Barrett, T. S.**, Lee, E. B., Levin, M. E., & Twohig, M. P. (2019). The role of psychological inflexibility and self-compassion in acceptance and commitment therapy for clinical perfectionism. *Journal of Contextual Behavioral Science*, 13, 7-16. https://doi.org/10.1016/j.jcbs.2019.06.005
  - Ong, C. W., Lee, E. B., Krafft, J., Terry, C. L., Barrett, T. S., Levin, M. E., & Twohig, M. P. (2019). A randomized controlled trial of acceptance and commitment therapy for clinical perfectionism. *Journal of Obsessive-Compulsive and Related Disorders*, 22, 100444. https://doi.org/10.1016/j.jocrd.2019.100444

- **Barrett, T. S.** & Lockhart, G. (2019). Efficient exploration of many variables and interactions using regularized regression. *Prevention Science*, 20(4), 575-584. https://doi.org/10. 1007/s11121-018-0963-9
- Long, E., Barrett, T. S., & Lockhart, G. (2019). Chronic health conditions and adolescent friendships: Perspectives from social network analysis. *International Journal of Adolescent Medicine and Health*, 33(5), 1-17. https://doi.org/10.1515/ijamh-2018-0293
- Borrie, S. A., **Barrett, T. S.**, Yoho, S. E. (2019). Autoscore: An open-source automated tool for scoring listener perception of speech. *Journal of Acoustical Society of America*, 145(1), 392-399. https://doi.org/10.1121/1.5087276
- Yoho, S. E., Borrie, S. A., **Barrett, T. S.**, & Whittaker, D. B. (2019). Are there sex effects for speech intelligibility in American English? Examining the influence of talker, listener, and methodology. *Attention, Perception, and Psychophysics*, 81(2), 558-570.
- Borrie, S. A., **Barrett, T. S.**, Willi, M., & Berisha, V. (2019). Syncing up for a good conversation: A clinically-meaningful methodology for capturing conversational entrainment in the speech domain. *Journal of Speech, Language, and Hearing Research*, 62(2), 283-296.
- Barrett, T. S., Wylie, A., Vogel, B., Sanghavi, K., Raspa, M., Aveni, K. P., Tullis, K., Caggana, M., White, K. R., & Bodurtha, J. (2018). Where do we go from here? The need for genetic referrals in patients who are deaf or hard of hearing: Findings from a regional survey.

  Journal of Early Hearing Detection and Intervention, 3(1), 36-53.
  - Yoho, S. E., Healy, E. W., Youngdahl, C., **Barrett, T. S.**, & Apoux, F. (2018). Speech-material and talker effects in speech band importance. *Journal of the Acoustical Society of America*, 143(3). https://doi.org/10.1121/1.5026787
  - Borrie, S. A., Lansford, K. L., & Barrett, T. S. (2018). Understanding dysrhythmic speech: When rhythm doesn't matter and learning doesn't happen. *Journal of the Acoustical Society of American Express Letters*, 143(5). https://doi.org/10.1121/1.5037620
- 2017 **Barrett, T. S.** & Brignone, E. (2017). Furniture for quantitative scientists. R Journal, 9(2), 142-146.
  - Borrie, S. A., Lansford, K. L., & **Barrett, T. S.** (2017). Generalized adaptation to dysarthric speech. *Journal of Speech, Language, and Hearing Research*, 60, 3110-3117. https://doi.org/10.1044/2017\_JSLHR-S-17-0127
  - **Barrett, T. S.** & White, K. R. (2017). Trends in hearing loss among adolescents. *Pediatrics*, 140(6), e20170619. https://doi.org/10.1542/peds.2017-0619
  - Fargo, J. D., Brignone, E., Metraux, S., Peterson, R., Carter, M. E., Barrett, T. S., Palmer, M., Redd, A., Samore, M. H., & Gundlapalli, A. V. (2017). Homelessness following disability-related discharges from active duty military service in Afghanistan and Iraq. Disability and Health Journal, 10, 592-599. https://doi.org/10.1016/j.dhjo.2017.03.003
  - Brown, L. T., Mohr, K. A. J., Wilcox, B. R., & **Barrett, T. S.** (2017). The effects of dyad reading and text difficulty on third-graders' reading achievement. *Journal of Educational Research*, 111(5), 541-553. https://doi.org/10.1080/00220671.2017.1310711
  - Brignone, E., Gundlapalli, A. V., Blais, R. K., Kimerling, R., **Barrett, T. S.**, Nelson, R. E., Carter, M. E., Samore, M. A., & Fargo, J. D. (2017). Increased health care utilization and costs among veterans with a positive screen for military sexual trauma. *Medical Care*, 55, S70-S77. https://doi.org/10.1097/MLR.00000000000000767

- Long, E., **Barrett, T. S.**, & Lockhart, G. (2017). Network-behavior dynamics of adolescent friendships, alcohol use, and physical activity. *Health Psychology*, 36(6), 577-586. https://doi.org/10.1037/hea0000483
- Borrie, S. A., Lansford, K. L., & **Barrett, T. S.** (2017). Rhythm perception and its role in perception and learning of dysrhythmic speech. *Journal of Speech, Language, and Hearing Research*, 60(3), 1-10. https://doi.org/10.1044/2016\_JSLHR-S-16-0094
- Behl, D., White, K., **Barrett, T. S.**, Blaiser, K., Callow-Heusser, C., & Croshaw, T. (2017). A multisite study evaluating the benefits of early intervention via telepractice. *Infant and Young Children*, 30(2), 147-161.
- 2016 Barrett, T. S. & White, K. R. (2016). Prevalence and trends of childhood hearing loss based on federally-funded national surveys: 1994–2013. Journal of Early Hearing Detection and Intervention, 1(2), 8-16.
  - Doutré, S. M., **Barrett, T. S.**, Greenlee, J. & White, K. R. (2016). Losing ground: Awareness of congenital cytomegalovirus in the United States. *Journal of Early Hearing Detection and Intervention*, 1(2), 39-48.
  - Muñoz, K., Rusk, S. E. P., Nelson, L., Preston, E., White, K. R., **Barrett, T. S.** & Twohig, M. P. (2016). Pediatric hearing aid management: Parent reported needs for learning support. *Ear and Hearing Journal*, 37(6), 703-709.
- Borgogna, N., Lockhart, G., Grenard, J., **Barrett, T. S.**, Shiffman, S., & Reynolds, K. (2015). Ecological momentary assessment of urban adolescents' technology use and cravings for unhealthy snacks and drinks: Differences by ethnicity and sex. *Journal of the Academy of Nutrition and Dietetics*, 115(5), 759-766.

## POLICY REPORTS

- Meier, C., Gast, J., Barrett, T., Ferguson, M., Culianos, D., & Ward, L. (2022). *Utah college sexual behavior survey: Initial findings report. Extension Research. Paper 20.* Utah State University. https://digitalcommons.usu.edu/extension\_research/20
- Doutre, S. M., Barrett, T., & Rice, J. (2021). California's Special Education Local Plan Areas: Funding patterns, inclusion rates, and student outcomes (REL 2021–134). Washington, DC: U.S. Department of Education, Institute of Education Sciences, National Center for Education Evaluation and Regional Assistance, Regional Educational Laboratory West. Retrieved from http://ies.ed.gov/ncee/edlabs.
- Doutre, S.M., Ripma, T., Barrett, T., Williams Valentine, T., Caparas, R. and Willis, J. (2021). California special education governance and accountability study. WestEd. https://www.cde.ca.gov/sp/se/ac/segalegreport.asp
- Doutre, S.M., Willis, J., Barrett, T., Ripma, T., Caparas, R., & Krausen, K. (2021). California State Special Education Funding System Study, Part 2: Findings, Implications, and Considerations for Improving Special Education Funding in California. WestEd. https://www.wested.org/ca-special-education-funding-system-study/
- Willis, J., Doutre, S.M., Krausen, K., **Barrett, T.**, Ripma, T., & Caparas, R. (2020). California Special Education Funding System Study: A Descriptive Analysis of Special Education Funding in California. WestEd. https://www.wested.org/resources/ca-special-education-funding-system/

### PUBLISHED PRE-PRINTS

- Barrett, T.S. (2019, Oct 3). List-columns in data.table: Nesting and unnesting data tables and vectors. PsyArXiv. https://doi.org/10.31234/osf.io/u8ekc
- **Barrett, T.S.** (2019, August 15). Six Reasons to Consider Using R in Psychological Research. *PsyArXiv*. https://doi.org/10.31234/osf.io/8mb6d
- Barrett, T.S., Cruz, R.A., & Lockhart, G. (2019, June 18). Marginal Mediation Analysis: A Practical Statistical Framework for Interpretable Mediated Effects. PsyArXiv. https://doi.org/10.31234/osf.io/fgm8t
- Barrett, T.S., Borrie, S.A., & Yoho, S.E. (2019, June 14). Automating with Autoscore: Introducing an R package for automating the scoring of orthographic transcripts. *PsyArXiv*. https://doi.org/10.31234/osf.io/d8au4

### PEER-REVIEWED CONFERENCE PROCEEDINGS

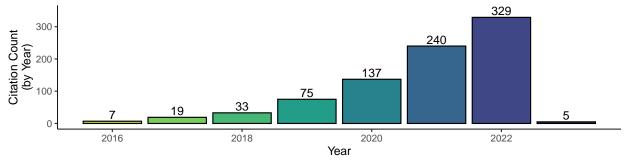
- Lubold, N. Borrie, S.A., **Barrett, T.S.**, Willi, M., & Berisha, V. (2019). Do Conversational Partners Entrain on Articulatory Precision? *Proceedings of INTERSPEECH 2019*. Paper number 1786, 1–5. (three reviewers, 50% acceptance rate). doi: 10.21437/Interspeech.2019-1786
- Willi, M., Borrie, S.A., **Barrett, T.S.**, Tu, M. & Berisha, V. (2018). A discriminative acoustic-prosodic approach for measuring local entrainment. *Proceedings of INTERSPEECH 2018*. Paper number 1419, 1–5. (four reviewers, 50% acceptance rate).
  - ArXiv Pre-Print: 1804.08663

## OTHER PUBLISHED WORKS

### R Packages

- Barrett, T.S. (2019). dissertateUSU. URL: github.com/tysonstanley/dissertateUSU. R package version 0.3.0. doi: 10.5281/zenodo.3240640.
- Barrett, T.S. (2019). tidyfast. URL: github.com/tysonstanley/tidyfast. R package version 0.2.1.
- Barrett, T.S. (2019). connectivity. URL: github.com/tysonstanley/connectivity. R package version 0.1.6.
- Barrett, T.S. (2019). rjasa. URL: github.com/tysonstanley/rjasa. R package version 0.1.1.
- Barrett, T.S., Borrie, S.A., & Yoho, S.E. (2019). autoscore. URL: github.com/autoscore/autoscore. R package version 0.4.1.
- Barrett, T.S. (2018). MarginalMediation: Marginal Mediation Analysis. URL: tysonbarrett.com/MarginalMediation. R package version 0.7.2.
- Barrett, T.S., Brignone., E. & Laxman, D. (2018) furniture: Furniture for Quantitative Researchers. URL: tysonbarrett.com/furniture. R package version 1.9.12.

#### CITATION COUNT HISTORY



Note: Data for citations in 2023 until January

### SELECTED PRESENTATIONS

- Gast, J., Ferguson, M., Meier, C., Barrett, T.S., Ward, L. & Culianos, D. (November, 2022). Youth Sexual Behaviors in Utah: A Retrospective Study of Behaviors and Sex Education in Middle School and High School. American Public Health Association, Boston, MA.
- Meier, C., Gast, J., Barrett, T.S., Ferguson, M., Culianos. D., & Ward, L. (November, 2022). We Need More Sex Education! The Results of a Retrospective Sexual Behavior Survey Among Utahns and Differences by Rurality and Sexuality. American Public Health Association, Boston, MA.
- Culianos, D., Barrett, T.S., Meier, C., Gast, J., Ward, L., & Ferguson, M. (November, 2022). The Reliability and Validity of Sex-Inclusive and Retrospective Sex Measures. American Public Health Association, Boston, MA.
- Meier, C., Gast, J., Barrett, T.S., Ferguson, M., Culianos, D., & Ward, L. (March, 2022). Youth sexual behaviors in Utah: Findings from the 2021 Utah College Sexual Behavior Survey. Utah Public Health Association, Virtual Conference.
- Smith, B.M., Barrett, T.S., & Twohig, M.P. (2021, June). Processes of change during exposure for intrusive thoughts. In L. Capel (Chair), Investigating acceptance and commitment therapy interventions and processes in obsessive-compulsive and related disorders. Paper presented at the annual meeting of the Association of Contextual Behavioral Science, online.
- Smith, B.M., Barney, J.L., Ong, C.W., **Barrett, T.S.**, Levin, M.E., & Twohig, M.P. (2020, November). Outcomes and mechanisms of change in acceptance and regulation approaches to exposures for intrusive thoughts. In S. P. Buinewics & J. Buchholz (Chairs), Understanding the therapeutic process of exposure therapy to optimize treatment. Paper presented at the annual meeting of the Association for Behavioral and Cognitive Therapies, online.
- Smith, B. M., Barney, J.L., Ong, C.W., Barrett, T.S., Levin, M.E., & Twohig, M.P. (2020, July). Physiological, behavioral, and self-report outcomes of acceptance and regulation approaches to exposures for intrusive thoughts. In S. Mpoulkoura (Chair), Third-wave approaches to anxiety disorders treatment: Outcomes and processes of change. Paper presented at the annual meeting of the Association for Contextual Behavioral Science, online.
- Hancock, A.S., Orellana, C., Alphonsa, S., Barrett, T.S., Logan, K., Gillam, S.L., & Gillam, R.B. (2020, May). An fNIRS Investigation During Stuttered and Fluent Speech. Poster presentation at Cognitive Neuroscience Society, Boston, Massachusetts.
- Barrett, T.S. (2020, January). Working with list-columns in data.table. Talk presented at the RStudio Conference 2020, San Francisco, CA.
- Vázquez, A.L., Chou, T., Navarro, C., **Barrett, T.S.**, Villodas, M.T., & Domenech Rodríguez, M.M. (2019, November). Understanding caregiver perceived need for and utilization of adolescent counseling services through machine learning. In M. D. Hetzel-Riggin (Chair). Addressing violence, abuse, and trauma throughout the socioecological model. Symposium accepted for presentation at the

- Association for Behavioral and Cognitive Therapies, Atlanta, GA.
- Budge, S., Borrie, S.A., **Barrett, T.S.**, Yoho, S.E., Vargas, R., & Lansford, K. (2019, November). Gamified Perceptual Learning of Dysarthric Speech. Poster presented at the 2019 ASHA Convention, Orlando, FL.
- Hirsch, M., Lansford, K., Borrie, S.A., & Barrett, T.S.. (2019, November). Familiarization of Dysarthric Speech: Generalization Between Speakers of Different Sex. Poster presented at the 2019 ASHA Convention, Orlando, FL.
- Ong, C.W., Lee, E.B., Krafft, J., Terry, C.L., Barrett, T.S., Levin, M.E., & Twohig, M.P. (2019, November). A randomized controlled trial of acceptance and commitment therapy for clinical perfectionism. In C. W. Ong (Chair), Using acceptance and commitment therapy for different clinical presentations: Evidence-based adaptations. Symposium conducted at the 53rd annual convention of the Association for Behavioral and Cognitive Therapies, Atlanta, GA.
- Vázquez, A.L., Barrett, T.S., Domenech Rodríguez, M.M., Bustos, M., Gutierrez, M., Amador Buenabad, N.G., & Villatoro Velazquez, J.A. (2019, March). The influence of perceived parenting on substance initiation among Latinx children. Poster presented at the Society for Research in Child Development, Baltimore, MD.
- Vázquez, A.L., Chou, T., Navarro, C., **Barrett, T.S.**, & Domenech Rodríguez, M.M. (2019, March). Examining caregiver perceived need for and utilization of adolescent counseling services through machine learning. Poster presented at the Society for Research in Child Development, Baltimore, MD.
- Vázquez, A. L., Domenech Rodríguez, M. M., **Barrett, T.S.**, Amador Buenabad, N., & Villatoro Velazquez, J. A. (2018, September) Factores de crianza que tienen alto impacto sobre el consumo de drogas por parte niños. In M. M. Domenech Rodríguez (Chair). Crianza positiva y consumo de drogas: hallazgos, modelos y retos para la implementación. Symposium presented at the 20 Congreso Mundial de Prevención de Adicciones en Niños y Adolescentes, Tijuana, BCS, MX.
- Barrett, T.S., & Lockhart, G. (2017). Enhancing the Exploration and Communication of Big Data in Prevention Science. Poster presented at the Annual Meeting of the Society of Prevention Research, Washington, DC. Received "Distinguished Poster Award" and "Abstract of Distinction."
- Barrett, T.S., & Lockhart, G. (2017). Exploring the Predictors of Marijuana Use Among Adolescents with Asthma. Oral presentation at the Utah State University Research Symposium, Logan, UT.
- Sanghavi, K., White, K., Barrett, T.S., Wylie, A., Raspa, M., Cashman, D., Vogel, B. Caggana, M. & Bodurtha, J. (2017). Poster presented at the Early Hearing Detection and Intervention Conference, Atlanta, GA. Received "Outstanding Poster Award."
- Brignone, E., Gundlapalli, A.V., **Barrett, T.S.**, Blais, R.K., Nelson, R.E., Carter, M.E., Kimerling, R., Samore, M.H., Fargo, J.D. (2016). Cost of Care among Male and Female Veterans with a Positive Screen for Military Sexual Trauma. Poster presented at the 2016 Annual Meeting of the International Conference of Psychology, Yokohama, Japan.
- Barrett, T.S., Munoz, K. & White, K. (2016). How well do parent report hearing loss in their children? Poster presented at the Early Hearing Detection and Intervention Conference, San Diego, CA.
- Barrett, T.S., Munoz, K. & White, K. (2016). Accounting for Temporary Loss in National Studies on Hearing Loss. Poster presented at the Early Hearing Detection and Intervention Conference, San Diego, CA.
- Barrett, T.S., Munoz, K. & White, K. (2016). An Evaluation of Early Intervention delivered via Video Conferencing. Poster presented at the Early Hearing Detection and Intervention Conference, San Diego, CA.
- Stevens, V., Barrett, T.S. & Nelson, R. (2016). Distribution and Daily Cost of Care in a Pediatric Hospital. Oral presentation to the Pediatric Guidance Council of Intermountain Healthcare, Salt Lake City, UT.

- Barrett, T.S., Munoz, K. & White, K. (2015). Refinements to estimating prevalence of hearing loss in children. Poster presented at the Utah State University Research Symposium, Logan, UT.
- Barrett, T.S., Prante, M., Peterson, R., Fargo, J.D., Pyle, N. (2014). Predictors of employability among homeless youth. Poster presented at the Psi-Chi Undergraduate Research Conference at Idaho State University, Pocatello, ID. Best Undergraduate Poster Presentation Award.
- Barrett, T.S., Holland, D. (2014). Nascent Entrepreneurship, Impulsivity, and Self- Efficacy. Poster presented at the Research on Capitol Hill, Salt Lake City, UT.
- Holland, D., **Barrett**, **T.S.** (2013). Impulsivity in young entrepreneurs. Round table discussion at the Babson Business Conference, Paris, France.

# Professional Development Activities Attended

- RStudio Conference sponsored by RStudio. Training on advanced features of R and RStudio, including training on data wrangling, reproducible analyses, and database access. January 2019.
- RStudio Conference sponsored by RStudio. Special training on using the Shiny developer interface for creating interactive, responsive websites using R. January 2020.
- American Educational Research Association Annual Meeting (Virtual). Training on quantitative methodologies (including psychometrics and econometrics) for studying educational policy and practice. April 2021.

### AWARDS

- 2017: Abstract of Distinction (Annual Meeting of the Society of Prevention Research)
- 2016: Distinguished Poster Award (Annual Meeting of the Society of Prevention Research)
- 2016: Outstanding Poster Award (Annual Meeting of EHDI)
- 2014: Best Poster Presentation (Psi-Chi Undergraduate Conference)

### TEACHING INTERESTS

#### **Primary Interest: Quantitative Methods**

- Undergraduate and Graduate Applied Statistics
- Multilevel Modeling (Hierarchical Linear Modeling, GEE, Mixed Effects)
- Reproducible Research (Research Methods, Open Science Framework)
- R for the Social Sciences (Undergraduate and Graduate Level)
- Research Methods (Undergraduate and Graduate Level)
- Causality and Econometrics (Undergraduate and Graduate Level)
- Structural Equation Modeling (Psychometrics and Measurement Models, Mixture Modeling)
- Mediation Analysis (Marginal Mediation, Moderated Mediation)

### TEACHING EXPERIENCE

- Applied Statistical Analysis (EDUC 6050)
  - Graduate-level applied statistics course for non-research degrees
- Research Design & Analysis I (EDUC 6600)
  - Graduate-level applied statistics course for PhD students

- Research Design & Analysis II (EDUC 7610)
  - Graduate-level linear regression course for PhD students
- R for the Health, Behavioral, Educational, and Social Sciences I and II (EDUC 6560)
  - Workshop
  - Created, Developed, and Taught
  - Graduate Level
- Research Methods (PSY 3500)
  - Undergraduate-level psychological research methods
    - \* Online
    - \* In-person

#### AVERAGE TEACHING EVALUATIONS

IDEA Area	EDUC 6050	EDUC 6600	EDUC 7610	PSY 3010	PSY 3500
Progress on Relevant Objectives	4.6	4.2	4.8	In Progress	4.1
Excellent Teacher	4.8	4.6	4.9	In Progress	4.4
Excellent Course	4.5	4.2	4.9	In Progress	4.2
Summative Questions	5.0	4.4	4.9	In Progress	4.4

Note: IDEA evaluation scores range from 1 to 5, with higher scores denoting higher agreement.